| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CT-5 | 86 | Purge | 9.60 | 9.70 | 469 | 2.60 | -522 |
| CT-4 | @12:50 | Insitu | 10.47 | 10.10 | 373 | 0.08 | -739 |

[0044] Low-flow purge is an established technique to sample groundwater. According to low-flow purge, groundwater is pumped from subsurface to surface. The process of bringing groundwater to the surface, however, alters many of the monitoring parameters. TABLE 2 compares data collected from both a low-flow purge (purge) and in-well data logging sensor probes for three monitoring events over a three month period. The in-well sensor probes provided continuous data shown in FIGs. 5 to 12.

IN THE CLAIMS:

Please rewrite claims 6 to 8, 14, 52 to 54 and 58 to 66 as follows:

6. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by a ± 20 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 5 feet of an open screen interval mid point of each well.

7. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by a ± 10 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 3 feet of a mid point of an open screen interval mid point of each well.

8. The method of claim 1, wherein the in-well monitoring is conducted by a plurality of in-well sensors arranged substantially along a transect to a PRB zone and the transect is defined by a ± 6 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 1 feet of an open screen interval mid point of each well.

14 The method of claim 1, comprising determining flow of contaminated aqueous medium up-gradient, down-gradient and transecting a PRB zone, placing monitoring wells along the flow of contaminated medium and conducting the in-well monitoring with the monitoring wells, wherein at least one monitoring sensor is placed in-well up-gradient of the PRB zone, at least one monitoring sensor is placed in-well down-gradient of the PRB zone and at least one monitoring sensor is placed within the PRB zone.

52. The system of claim 51, wherein the transect is defined by a ± 20 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 5 feet of an open screen interval mid point of each well.

53. The system of claim 51, wherein the transect is defined by a ± 10 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 3 feet of an open screen interval mid point of each well.

54. The system of claim 51, wherein the transect is defined by a ± 6 feet wide horizontal plane that transcribes at least one up-stream monitoring well and at least one down-stream well at a level that is ± 1 feet of an open screen interval mid point of each well.

58. The system of claim 57, further comprising a communication link that interconnects the collector and the monitor, the communication link capable of transmitting the signal to enable a user at the monitor to obtain information concerning the contaminant.

59. The system of claim 58, wherein the communication link comprises a web connection.

60. The system of claim 58, wherein the communication link comprises a network.

61. The system of claim 58, wherein the communication link comprises at least one selected from the group consisting of a phone modem connection, radio communication connection, network communication connection, wireless communication system connection, cellular communication connection, satellite communication connection, web connection and Internet connection.

62. The system of claim 58, further comprising a two-way communicator between the collector and the sensor to permit selection, activation, de-activation, modification, fine-tuning, manipulation or resetting of the sensor.

63. The system of claim 58, wherein the sensor comprises at least one selected from the group consisting of a vapor sensor, chemical sensor, fiber optics sensor, acoustic wave sensor solid-state sensor, metal oxide sensor and an electrochemical sensor.

64. The system of claim 44, comprising a plurality of sensors emplaced in a respective plurality of wells arranged substantially along a transect to the PRB zone.

65. The system of claim 44, comprising a plurality of sensors emplaced in a respective plurality of wells arranged substantially along a longitudinal axis of the PRB zone facing flow of the contaminated aqueous medium.

66. A system, comprising:

a PRB zone to treat a contaminated groundwater; and

a sensor located substantially along a PRB zone transect of flow of the contaminated groundwater from an up-gradient location, across the PRB zone to a down-gradient location.